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NEW Perfect Agriculture is the foundation of all Trade and Industry.—Liebig. SERIES.

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CHEESE DAIRIES.

Experiments in the management of Cheese Dairies, and manufacture of Cheese.

BY ALONZO L. FISH.

In the first place, milk is a very sensitive fluid, and liable to be varied in quality by impure water, by damp and unventilated stables, change of diet, excess of feeding, excitement of temper, irregular milking, salting, &c., which destroy its susceptibility to produce like practice.

2d. Cheese, when pressed and exposed in a *curing process*, is no less sensitive, and equally liable to be varied in texture and flavor, by size of cheese, exposure to excess of heat, bad air, &c., the effect of which I shall hereafter notice. There are, however, leading principles which form the basis of operations, and should be closely adhered to *in all cases*, in the process of manufacturing cheese. *Salt*, *rennet*, *heat* and *pressure*, are the principal agents used in converting milk into cheese, the flavor and texture of which is determined by their proportionate use. Their proportion is varied by different dairymen, according to their notions of propriety, as best adapted to their fixtures, experience, &c. Hence arise the great inequalities in dairies, in the same neighborhood, and even in the same *dairy-rooms* may be found as many different qualities of cheese as there are of fruit in an apple orchard. Some of these are matured at an early period, while others mature later, and are unsuited to the same market.

The evening's and morning's milk is commonly used to make one-day's cheese. The evening's milk is strained into a tub or pans and cooled to prevent souring. This is done by running water through a vessel set in the milk, or setting pails filled with cold water into the tub, and stirring till cool; but little cream will rise over night.

The cream is taken from the evening's milk, and kept till the evening's and morning's milk are put together, and warmed to receive the rennet. This is often done by heating a part of evening's milk to a temperature that will warm the whole mass. Both are objectionable, *because the natural affinity which is necessary to preserve between the constituent parts a perfect coherence* is destroyed, by a portion of the milk being overheated. It is better to warm the whole mass in a manner that will produce an *equilibrium of heat*, which is best done by placing the vessel containing the milk, within a larger vessel, with two inches under the bottom, and one inch of space at the sides, into which space water may be put to cool the milk, and into which steam may be let to warm the milk and scald the curd. The more water surrounding the milk, the more uniform will be the heat. The cream, if added, (which is generally done), is best incorporated with the milk, by putting it with twice its quantity of new warm milk from the cow, and add warm water to raise its temperature to ninety-eight degrees. Stir it till perfectly limpid, add cream to milk, and then put in rennet, that the same stirring may mix both at once with the mass. If milk is curdled below eighty-four degrees, the cream is more liable to work off with the whey. *An extreme of heat will have a like effect.*

Curdling heat is varied with temperature of the air, or the liability of the milk to cool after adding rennet. (See table, April and June.) A fine cloth spread over the tub while the milk is curdling will prevent the surface from being cooled by circulation of air. No *jarring of the milk*, by walking upon a springy floor or otherwise, should be allowed while milk is curdling, as it prevents a *perfect coherence*.

Rennet.—Various opinions exist as to the best mode of saving rennet, and that is generally adopted which it is supposed will curdle the most milk. I have no objection to any mode that will preserve its strength and flavor, so that it may be *smelt* and *tasted* with good relish, *when put into the milk*. Any composition not thus kept, I deem unfit for use, as the coagulator is an essential agent in cheesing the curd, and sure to impart its own flavor. The rennet never should be taken from the calf, till the excrement shows the animal to be in perfect health. It should be emptied of its contents, salted and dried, without scraping or rinsing, and kept dry for one year, when it will be fit for use. It should not be allowed to gather dampness, or its strength will evaporate. To prepare it for use, into ten gallons of water, (blood warm,) put ten rennets, churn or rub them often for 24 hours, then rub and press them to get the strength, stretch, salt and dry them as before. They will gain strength for a second use, and may be used when the weather will admit of soaking them to get the full strength. Make the liquor as salt as can be made, strain and settle it, separate it

from sediment, (if any,) and it is fit for use. Six lemons, two ounces of cloves, two ounces of cinnamon, and two ounces of common sage are sometimes added to the liquor to preserve its flavor and quicken its action. If kept cool in a stone jar, it will keep sweet any length of time desired, and a uniform strength can be secured while it lasts. Stir it before dipping off to set milk, take of it enough to curdle milk *firm* in 40 minutes. Squeeze or rub through a rag anatto enough to make the curd a cream color, and stir it in with the rennet. When milk is curdled so as to appear like a solid, it is divided into small particles, to aid the separation of the whey from the curd. This is often *too speedily done*, to facilitate the work, but at a *sacrifice* of *quality* and *quantity*.

The three *indispensable agents*, *heat*, *rennet* and *pressure*, rightly applied, must keep pace with each other in effect. The former operating to subdivide, the latter to aid cohesion, by bringing the particles of a sameness closer in contact. This should be *skillfully* and *studiously* applied in a mild way, according to the capacity of the curd to receive it. The less friction in working the curd the less waste. If *heat is raised too fast*, or commenced while the curd is too young, the effect of the rennet will be checked, and decomposition will not be complete, and will result in a leaky cheese.

This often happens when steamers are used in small dairies. Heat may be raised in scalding *to keep pace with rennet;* if rennet is quick heat may be raised quick, if slow heat must be raised slow and held longer, (see table April 24th and 26th.) Scalding heat may be carried from 96 to 104 degrees, according to the size of the cheese, and temperature to which the cheese is exposed. During the process of scalding, the whey and curd should be kept in motion, to prevent the curd from settling and sticking together, as separating it is attended with great labor and waste from friction.

When the curd is cooked, so that it feels elastic and will squeak when chewed with the front teeth, it is separated from the whey to receive salt. This is done by dipping it into a strainer over a basket or sink, or drained off and salted in the tub. Either may be done without adhering in lumps, by stirring it in a small portion of whey, till cooled to 94 degrees. This is the most critical part of the process, where cheese-makers are most likely to err, as the portion of salt retained in cheese after pressing, will be in proportion to the capacity of curd to receive it when added. At a particular period and temper of curd, when draining off whey, it will absorb salt freely, and after being thoroughly mixed and packed up for a few minutes while warm, it will be evenly shrunk and cleansed by salt and whey, and will press out freely; but if the curd is *not well cooked*, or cooled too fast in draining off whey, it will acquire a degree of stubbornness, prevent the absorption of salt to shrink and cleanse, and *no amount of pressure* will be sufficient to drive out the fluid.

To be continued.

Mr Stafford's process for preserving Breadstuffs.—This invention, of which we recently gave an account, bids fair to be of very great practical utility. The New York Board of Agriculture recommended it in the highest terms. The following remarks respecting it, were recently made in the New York farmer's club by Charles Henry Hall Esq.

"The process of Mr. Stafford is one of distinguished interest, as it relates to the preservation of breadstuffs, which are so liable to injury. To preserve grain, flour and meal in purity for distant transportation is of immense importance. We have recently sent considerable quantities to relieve the sufferers of Ireland, &c., of which I regret to say, large portions spoiled on the voyage, and much was even hove into the sea, being too much damaged for any use whatever. You remember a few years ago, we imported wheat from the Black Sea, at the cost of two or three dollars a bushel,—and we frequently received it from there in a damaged state. It is a practice in the south of Europe, to dry their grain in the sun,—that was an ancient and is a modern method of preservation,—and anciently such dried wheat was stored in perfectly dry places, to be ready in the event of famine. It being thus preserved perfectly for years. Mr. Stafford here gives us a method by which our precious Indian corn, the staff of life in America, can be perfectly preserved for foreign and home consumption. I say precious, for it affords us bread, and in its oil, is equivalent almost to meat.

The complete exclusion of moisture is alone necessary to preserve the breadstuffs for an indefinite length of time. I have, in my mercantile business, had much to do with them, especially flour,—and found the difficulties to be great, for want of proper drying,—I found flour so caked in the barrels that it required a chisel to break it up,—total losses to the merchant have been not unfrequent. It is indeed most evident that any process which will enable us to convey our breadstuffs pure and sweet to all parts of the globe,—will be of incalculable benefit to us and the world.

Sickly Foliage and Iron.

Many observers, of course, must have noticed the pale and sickly appearance which plants sometimes assume when in a diseased state. The restoration of these to a healthy condition, by the use of salts of iron, has been accomplished in numerous experiments by Eusebe Gris, of Chatillon, in France.—That the sickly condition of the plants operated upon, bore a re-

semblance to the *Yellows of the Peach*, as known in this country, may perhaps be somewhat doubtful; but the success attending his experiments and the beneficial use of iron on some diseased trees in this country, are such as to lead to the belief that it may prove of important benefit. The attention of the public has been directed to this subject in the Horticulturist, by A. J. Downing, its editor. A brief notice may induce some of our readers to repeat or modify the experiments. The iron was applied in the form of solutions of its salts, the sulphate, chlorate, and nitrate of iron; the sulphate (copperas) being chiefly used, at the rate of 3 or 4 drams to a quart of water, if for watering the root; or at the rate of only quarter of a dram to quart of water, if for syringing the leaves.

The experiments on plants in pots, where the solution could be easily applied to the entire roots alike, were eminently successful. Some species of Pelargonium, Stachys and Malva, by 2 or 3 waterings of a gill to a point each, entirely recovered their healthy green color in 3 weeks, though quite yellow at first; a Diasma required 2 months; and a Pimelia regained its color but imperfectly. In the open ground, the application to the roots is more difficult, and the results more uncertain; but it was found, however, that a bush of the Napœa Levis, very badly diseased, was quickly changed to a healthy state.

When the weak solution was applied directly to the leaves of such plants as are most quickly affected, a single application produced a renewal of the green in 2 or 3 days, wherever the solution touched them; and in one case of a very badly discolored geranium, "every line painted on the surface of the leaf by a brush, was rendered beautifully distinct through the intensity of the green color." For producing an immediate effect on diseased trees syringing the leaves is considered preferable.

Very favorable results were obtained when the process was applied to sickly pear trees with discolored foliage.

It was remarked during these experiments that when the solution was applied to the roots and consequently ascended through the stem, branches, petioles, and midribs of the leaves, the part of the leaves nearest the nerves or midribs were first changed in color, and the veins or minuter ramifications afterwards. On the contrary when the color was applied to the surface of the leaves, the portions colored were distributed in patches without any relation to the nerves or veins.

The editor of the Horticulturist states that Dr. Reed of Poughkeepsie, applied iron in the form of blacksmith's scoria and cinders, to the soil about his pear trees, and the result was a remarkably healthy growth and fair fauit; his practice being founded on the fine condition of the pear tree in the iron district in the eastern States. He also says in a number published last year. "On learning, last autumn, with some surprise, the great perfection which the pear attains [at Plymouth, Mass.] we applied to Mr. Washburn, one of the most successful growers there, for a sample of his soil. On having it analyzed, we find that this soil differs from other fertile soils chiefly in containing a much larger proportion of oxide of iron.

T. A. Smith of Syracuse, describes in the same work, a successful application of rusted iron turnings, to the roots of a diseased peach tree, which soon restored it to health. The earth was removed from the roots; a peck of turnings applied, water poured on, and the soil replaced. This may be an over dose; but the rust of iron is very slowly dissolved and absorbed by the roots; the disease was perhaps incipient yellows, though this does not appear certain.

These experiments may not uniformly prove successful—and they cannot be recommended with the confidence resulting from long practice. But they are easily performed, and may lead to important and valuable results, and are hence worthy of a full trial. It should be observed in all new experiments of the kind that safety dictates a commencement with a small quantity, increasing the dose till the desired effect is obtained.—*Albany Cultivator.*

Young Turkeys.—These are *delicate* and *chilly* bodies and require the utmost attention to raise them. For many weeks after being hatched they require to be kept dry and warm and to be fed with stimulating, nutritious food. As soon as hatched they must be taken from the mother and given a grain of black pepper, then be put into a basket with wool or cotton, and lightly covered with the same material. If the weather be cold, the basket should be placed sufficiently near the fire to keep them measurably warm. In a few hours after being hatched and thus treated, they must be fed with hard boiled eggs, chopped fine. This food may be advantageously continued for a few days. After the *third day* it might be well to mix with the eggs a little crumbs of pone bread or stale wheat bread, moistened to a proper consistence with the curd of sour milk, off of which the whey has has been strained, and with which the tops of the wild onion or chives, chopped fine, must be mixed. This kind of food, with occasional messes of *boiled wheat, millet* or *rice*, should be continued for about eight weeks, never omitting to season them with the tops of the wild onion or chives, as above directed.

The hen turkey when first given her brood, should be placed in a dry, warm apartment, be regularly fed and watered thrice a day. The young ones should be fed oftener, be given water regularly, which should be placed in a shallow vessel, so that they cannot wet themselves,

as *wet* is fatal to them. In a few days, say three or four, a pen should be prepared out of doors for the old hen turkey, which should be so made at top as to *turn rain* and *shade*, as both sun and rain are injurious when the chicks are quite young. It is best, too, to have a separate coop, in which to feed the young ones, as, otherwise, the old hen would be sure to appropriate the largest share of food for herself at the expense of her brood.

As the young turkeys get older and stronger, and their digestive organs become strengthened, say in about eight weeks, the old hen may be let out of the coop and the young fed on cabbage leaves or lettuce chopped fine, mixed with small hommony or boiled potatoes; but, even at this stage of their growth, the chopped wild onions and chives should not be omitted, as they still require the stimulating effects of these herbs to give tone to their stomach and diffuse a warmth through their systems.

Those who desire to have fine, well grown, birds, must recollect that, to insure this result, the turkey must be well fed during its entire stage of growing—they should recollect also, that the turkey, though domesticated, is of a wild, roving nature, and that, unless attached to its home by kindness and care, will be apt to take to the woods: to prevent which they should be fed in the poultry yard night and morning, and thus made to love their homes.

They need not be *stuffed*, but still they should be *fed*, generously *fed*.

The Snuffles and Gapes. Young *turkeys*, when about three or four weeks old, are sometimes liable to be attacked by these diseases: and we are told that they may be both cured by mixing a tea-spoonful of flour of *sulphur* in as much corn as is usually fed to 20 young turkeys. This must be given once a day until the disease, whether snuffles or gapes, disappears, which it will do in a few days. It is reasonable to presume, if sulphur will cure these diseases in the *turkey*, that it would prove equally efficacious if administered to *chickens*—and as the remedy is simple and inexpensive, it is certainly worthy of trial.

The Scours. If the young turkeys should be attacked with this disease, mix a tablespoon full of pulverised charcoal or chalk, with every pint of their food.

Geese.—As the goslings are hatched they must be taken from the mother, and cared for as recommended for young ducks. When the goose has hatched all the eggs, the young must be given her, though it would be best to keep her confined for two or three days, when she and her young brood may be turned out into the kitchen yard or lane. The goslings should be fed with crumbs of bread soaked in boiled milk, or with corn dough, made up with bonny clabber, frequently through the first week. When they gain strength enough to follow the mother, without danger of being seized with the cramp, she may be permitted to range somewhat at large in search of grass, that being the natural food of the goose. *Chives* chopped up fine and mixed up with their food once a day, will be found beneficial. When the goslings get 6 or 8 weeks old, they may be allowed messes of boiled potatoes and Indian meal dough, in which chives have been chopped fine and mixed.

Goslings are liable to *diarrhœa*: this may be checked by mixing a teaspoon full of powdered chalk or charcoal in a pint of their food. The same precaution is necessary with regard to water, with young goslings as with young ducks. Their drinking water should therefore be given them under the same restrictions, and as much care taken to preserve them dry as with the young of ducks. The goslings should have clean straw placed beside their mother for them to sleep on, in the goose house at night. The house should at all times be kept clean.

It may be well to observe here, that each kind of poultry would be the better for having a separate house for their accomodation.—*American Farmer.*

Wool Markets—To Wool Growers.—Mr. Bateham: At present there exists a depression in the Wool Market, the primary cause of which may be traced to the recent pecuniary revulsion in Europe, compelling foreign manufacturers to throw an immense amount of cloths on the American market, with orders to their agents to dispose of them at any sacrifice. The effect could not but be disastrous to American manufacturers; but they have bravely met the storm, and it is now believed by the most sagacious to be over; and hereafter the competition from abroad will be unworthy of note. But manufacturers will insist that the loss they have sustained should come from the pockets of the wool growers, out of his coming clip. Is this fair? are we to be insurers for the manufacturer? In every branch of business there will be seasons of loss, or perhaps of moderate profit. This seems to be peculiarly the case with the farmer, from bad or indifferent, and sometimes no crop at all. Who are *we* to appeal to to make up our losses? We "take it as we can catch it," and so must it be with those who manufacture our products. They must look out for No. 1, and we the same.

Now there is no cause whatever for us to dispose of our wool at less prices than last year; on the contrary, the disturbed political state of Europe will diminish manufacturers of all kinds (except powder and shot) and consequently the American manufacturer will have far less competition to meet. The most shrewd and intelligent business men predict a large advance on woollen cloths before the first of October next: I have no doubt of it, for it is as inevitable as it

would be if flour was selling at three dollars a barrel in the New York market.—*Ohio Cult.*

The Wheat Crop.—The wheat crop, everywhere, as far as we have seen or can learn, continues to present the most favorable appearance. Indeed it is the unanimous declaration of every one, that the wheat crop throughout the Union never looked better on the 1st of June. If it escapes the rust it will prove a very bountiful crop. *Grass* and *Oats* also promise very abundantly—the rains and cool weather being favorable for these.—*Ohio Cultivator.*

Gypsum, or Plaster of Paris.—To Chancellor Livingston is owing the introduction into New York, and the common use of *gypsum* or plaster of Paris, as a manure. About the year 1789, he began to make experiments on his own farm, and succeeding, he communicated his results to the farmers of the State. And in a few years he had the satisfaction of seeing it generally used. It is this chiefly which has given New York its present primary station among the United States. The lands upon our Hudson river were fast deteriorating, having been worn out by constant tillage. On this account, the inhabitants of this district of country were fast removing into the more unsettled parts of this State, or more generally into some of the new States. But the seasonable introduction and use of plaster of Paris renewed our worn-out lands, and brought them back to more than their original fertility. The depopulation of our State was prevented. Emigrations from other States were made into it; and New York, which in the year 1790 was only the fourth in population, and in 1800, only the third, at the last census in 1810, was the largest in population of any in the Union. But it not only made our inhabitants numerous, it made them industrious, prosperous and rich. The *gypsum* was the true philosopher's stone, which had been so long sought for. It turned everything it touched into gold.

To Chancellor Livingston this State is further indebted for the introduction of the Merino breed of sheep, and for the general emulation excited among our farmers, to rear and improve these valuable animals. The introduction of these was a consequence of the Chancellor's mission to France, and must be of the greatest and most decisive advantage to the United States. Already its effects upon our manufacturers have been seen. The most affluent among us now feel proud to wear and to exhibit the fruit of our infant manufacturers. The American farmer feels a conscious greatness and independence, when he can appear clad in the vestments wrought by the hands of his sisters, or wife, or daughters. But above all, the real patriot sees and rejoices that our future dependence on foreign manufacturers can be no longer asserted; and that our national wants can be supplied from our own internal resources, whenever the true policy of the government may require the measure. These are the consequences of the introduction of the Merino sheep. For ever honored by his country be the man, who obtained the *golden fleece*, and returned with it to our shores; who has declared a second independence for our country.—*Eulogium by T. Clowes.*

Value of Corn-Cobs.—We have frequently spoken of the value of grinding corn with cobs for feeding cattle and horses. When cattle are fed a large quantity of meal it is not easily digested, owing to its lying too closely together in the stomach. The gastric juice does not easily penetrate the mass. The principal advantage of the cob, we suppose to be that it renders the meal lighter, and enables the digestive organs more easily to manage it. Still we have no doubt that there is some *nutriment* in cobs. We remember an account well authenticated, of a woman in Maryland who in a season of great scarcity of hay and other cattle-food, begged the corn-cobs from her neighbors, which she boiled and gave to her cow. She wintered the cow in this way, and brought her out in the spring in better condition than most of the stock in the neighborhood. We have known of other instances which showed that the cob was capable of affording support to animals.

But a *radical* kind of a writer in a late number of the *Genesee Farmer*, states that he fed cattle and horses on corn and cob meal, and that it *injured* them! And in order to show his opinion of the worthlessness of this food, he recommends that "crushed flints and ground glass" be used instead of cobs.

A counterpart is given to this in the address of W. H. Lamport, before the Ontario County Agricultural Society: He says—"Cob meal makes a good feed for cattle, horses or hogs. A friend of mine in Yates County, informed me he wintered a span of farm horses and kept them in good healthy condition with ground cobs. His course was to thresh off the corn leaving from one to two quarts of corn to the bushel of cobs; which being ground he fed them freely, but with nothing else save dry barley straw."

This is giving rather more value to cobs than we are disposed to allow, but we are confident it is better to grind them with the corn than to feed stock with meal from corn only,—especially when a considerable quantity of meal is to be given.—*Albany Cultivator.*

Goshen Butter.—The navy of the United States requires, on its foreign stations, about 80,000 pounds per annum. This is furnished from Orange county, or such as bears that stamp. It is put up in firkins of 80 lbs. each, and is required to stand the test of tropical climates, in a sweet and wholesome condition, for several years.

Those through whose hands the butter for the

navy passes, as agents of the government, are firmly of opinion that butter, to stand the test of foreign climates, must be in *Orange County*, and that some other will answer the purpose.

It was therefore deemed important by the secretary of the N. Y. Agricultural Society to ascertain whether all the butter which passes for Orange co. is in fact made there; and the result of his inquiries was that Orange county butter is made in the counties of Orange, Greene, Broome, Chenango, Chemung, Delaware, Sullivan, and Ulster; and that dealers in the butter from certain dairies in all these counties, in sending to the southern markets, label their butter *Orange county*, in compliance with the prejudices of their southern customers. The butter from these dairies brings from 18 to 28 cents per pound for the entire lot.

These facts go to show, that though something depends upon the soil and climate, yet more after all depends on the manufacture.

Guano—Its effect compared with Ashes.—Stephen H. Smith, states to a committee of the Rhode Island Society, for the encouragement of Domestic Industry, that on one acre of sandy loam, which without manure would have produced twenty bushels of corn, he sowed broadcast, on the furrow, after deep plowing, 500 pounds of best guano, well pulverized, and mixed with four times its bulk of dry loam. After harrowing, it was planted with corn. The product was 50 bushels. In 1845, he seeded down half an acre of ground, a sandy loam, with eight quarts of millet, ten pounds of clover, one peck of red-top seed. This lot was dressed with 350 pounds of guano, worth $9, applied as above described. On an adjoining half acre, he put the same kind of seeds and in like quantity. Instead of guano, he applied 64 bushels of unleached ashes, worth $8. The crop of millet was perceptibly best where the guano was used and about ten days earliest. The crop of grass in 1846 was one-fourth the largest where the ashes were used. In 1847 the clover had nearly disappeared where the guano was applied, but remained well stocked where the ashes were put. The first and second crops this year were decidedly in favor of the ashes.

A Pattern Agricultural Society.—We very much like the plan of an agricultural society formed some two or three years ago in one of the counties of Maryland. By its constitution, all its funds are to be applied to the creation of a library.—It has a standing committee on farms whose business it is to inspect the farm of each member and to make faithful reports of the condition in which they find them. Each member at the beginning of the year is to take an experiment, to conduct it carefully, and at the end of the year to report the result.

We recommend these provisions to our Farmers' Clubs in Iowa. The examination and report on farms would have a most decidedly beneficial effect. We can conceive nothing better calculated to incite our farmers to every needful exertion to make their farms appear well.

That of distributing subjects for experiment is another wise provision. We like that too, and recommend it also, to our Iowa Clubs. In conducting experiments sooner than in any other way, will men be impressed with the importance of proper agricultural education for themselves and their children.—*Iowa Farmer.*

The Curculio Repelled.—A. J. Downing in the Horticulturist, states that on two nectarine trees, (a fruit eminently liable to destruction by this insect,) standing near a stable yard, not a single puncture could be discovered, while others a few rods distant did not escape. This effect was attributable to the offensive fumes of the manure repelling the insect. The same journal contains a communication stating that the writer wishing to stimulate some old plum trees, left round them for a forthnight, uncovered a heavy coating of fresh horse-manure, during the period of the swelling of the fruit. These trees bore fine crops; all others were stung, and dropt all their fruit.

Hints to Young Farmers.—Make it a rule to read a little every day, even if it be but a single sentence. A short paragraph will often afford you a profitable scource of reflection for a whole day. For this purpose your agricultural paper is admirably adapted. Keep it always within your reach, so that you may lay your hand on it any moment when you are about the house.

We know a large family that has made itself intimately acquainted with history, probably more so than any other family in the entire United States by the practice of having one of the children, each one taking a week by turns, read every morning, while the rest were at breakfast. —*Iowa Farmer.*

Red Canada Apple.—The editor of the Worcester (Mass.) Transcript, says that he has lately had a sample of this favorite western apple sent to him from Western New York, and that it is none other than the "Old Red None-such," an apple well known in Massachusetts and else. It is esteemed a superior apple to the Baldwin. It has an exceedingly delicate flavor, and is more tender and delicate than the celebrated Esopus Spitzenburg.

☞The School Commissioner of the State of Indiana reports that two-thirds of the children in that State do not attend any school whatever. This is the State, be it remembered that cannot, or rather does not, support its agricultural paper. Glorious State is Indiana. It neither supports its agricultural paper nor sends its children to school. Land of Promise indeed.—*Iowa Far.*

XUM

Letter from one of the Patriarch's of Michigan.

It does one good to sit and listen to the tales of the venerable men who first pitched their tents in the wilderness of the West. And it is equally interesting to see a man girding himself up, and making his first appearance as an Author ot the age of 74.—Ed.

For the Michigan Farmer.

Mr. Editor,—I am one of the subscribers to your very useful paper; and I observe, of late, some commmunications from my particular friends of Plymouth, and particularly from Hon. J. G. Barker, who is the friend of every good cause. I felt diffident in writing anything for the public; but as your paper is founded on republican principles; giving the smallest farmer the same privilege of expressing his views, as the lordly one, I take courage.

I have read a good deal of Roman History, and among other things I learn that Cincinnatus and other ancient Romans, had not more than five to ten acres of land, and that they cultivated it to the highest degree. I am a Caledonian by birth, and came to this country fifty-six years ago, in the reign of Geo. Washington; was one of the first settlers of the Town of Plymouth, twenty-three years ago, when it was a Wilderness,—not a bush-cut — and surrounded by quiet Indians; lived four days in a tent, until we could build a small hut.

Plymouth is twenty-five miles from Detroit, and in the first commencement of our settlement it took three days to make a trip to Detroit. We had to take a sharp axe with us, in order to cut our way through the swails. I settled in Plymouth on the 12th day of May, chopped and cleared two acres of land, with the assistance of my boys; planted corn, potatoes, beans, and other sauce, the same season, and had a first rate crop. There was no straw to cover our potatoes with, but we gathered leaves in the woods which kept them good. I am now 74 years of age, and if I was a young man I would follow the true agricultural principles of farming, as I discover from day to day, that great advances are making for the benefit of mankind. I am in favor of deep ploughing of land. I have read of the great effect produced by ploughing in the heavy dew. I conceive that if the farmer should get up at 3 o'clock in the morning, and commence ploughing in the field, before the sun caused it to evaporate, he would turn under a good deal of nitre, and thus enrich land greatly. Philosophers tell us that every flake of snow contains a particle of nitre, and I have discovered in sowing wheat late, if there comes a light snow, that the wheat is greatly improved by it, and grows rapidly. I find that I have spun out my letter to a considerable length. I am at present, a farmer in Browns town, 18 miles below Detroit.

I remain, Dear Sir, Yours, &c.,

W. Mc F.

For the Michigan Farmer.

Receipts.

To Cure a Sprain in Horses.—One ounce spirits of turpentine, one ounce oil of spike, one ounce of hartshorn, one ounce of British oil, one ounce origanum, one ounce gum myrrh, mix and bathe the part affected.

Founders in Horses.—Take hog's lard, heat it boiling hot, take the shoe from the foot, pear it down as thin on the bottom as it will bear, rasp it thin on the sides of the hoof, then put it in the hot lard, take a spoon and dip the lard on the hoof as near the edge of the hair as possible, while the lard is boiling. The horse is fit for use in three hours.

Shoulder Sprain in Man or Beast.—One ounce camphor gum, one-fourth ounce spirits of hartshorn, one-fourth ounce oil of amber, one ounce oil of spike, one ounce spirits of turpentine, bathe the part effected.

To Cure Scratches, Sprains, Swelled legs, Cuts, Bruises and Fever Sores.—one ounce origanum oil, 1 ounce oil of spike, ½ oz. spirits turpentine, ½ oz. camphor gum, ½ oz. sweet oil, one beef gall, ½ pint fourth proof brandy, mix them together, cork it tight, set it close to a warm fire, shake it frequently for 24 hours; then it is fit for use, always shake it before applying it.

To take the film off the Eye of Cattle or Sheep.—Put a teaspoonful of molasses on the eye ball.

To Cure Warts in Horses or Cattle.—Wush the wart or tumor in strong pearlash water.

Ginger Beer.—One pint molasses, two spoonfuls ginger, to half pail-full of water, boiling hot when well stirred together, fill the pail with cold water, leaving room for one pint yeast, which must be luke warm; place it on the hearth for the night, and bottle it in the morning.

Best kind of Beer.—Twenty drops oil of spruce, twenty drops oil of wintergreen, twenty drops oil of sassafras, pour two quarts of boiling water upon the oils, then add eight quarts of cold water and three pints of molasses, half pint yeast, let it stand two hours, then bottle.

Best Spruce Beer.—Cold water, ten gallons, boiling water, eleven gallons, mix in a barrel, and add thirty pounds of molasses, one ounce or more of the essence of spruce, and one pint of yeast, bottle in two or three days.

To join Glass Together.—Melt isinglass in spirits of wine, adding these to about one fifth part water, using a gentle heat, and when it is perfectly melted and mixed, will form a transparent glue, which will unite glass perfectly solid.

W. W. Worden.

To Shrink Flannels.—Inclose new flannel in a bag; put it into a boiler with cold water; heat and boil it. It will never shrink any more after this operation.

Salt water applied to the wick of oil lamps or candles adds 10 per cent to the brilliancy of the light.

MICHIGAN FARMER.

WARREN ISHAM, EDITOR.

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Do Something.

Do something. If you cannot do one thing do another—anything to keep you from the paralizing influence of inaction. Man was made for action, mental, moral and physical, and he sins against the laws of his being, when he allows himself to sink into inaction. How is it that any man ever became a prodigy of muscular strength, but by the exercise of his muscular powers to the utmost of their capacity for a series of years? And who ever heard of an intellectual prodigy, who did not acquire his wonderful powers in the same manner?

On the other hand, who are the weak, the timid, the irresolute, doomed to imbecility of both body and mind! *Who?* Are they not the physical and mental drones of the community? There is no such thing as standing still, either physically, morally or mentally. We are either advancing from one stage of improvement to another, in the exercise of our faculties, or we are sinking downward, by their neglect, in a corresponding degree.

And it is a wise provision of the great Architect of our natures, that our enjoyments keep pace with the exercise of the various faculties with which he has endowed us, and that our miseries multiply upon us in proportion as we suffer them to relapse into inactivity.

Do something then,—as you would avoid the fatal consequences of inaction—*do something*. You can better afford to pay for the privilege of having something to do, than you can afford to remain inactive—can you not? Can you not far better afford to part with your money, than to take a retrograde motion in the scale of being, and thus, at the same time, make total shipwreck of your capacity for enjoyment?

It is by no means uncommon for persons to sink down discouraged under the paralyzing influence of misfortune, and yield themselves up willing victims to inaction. And thus their sun, which might again have arisen upon the world with increasing splendor, goes down for ever. But why should you thus make a sacrifice of yourself upon this Moloch? Why not shake off the fatal spell, gird up yourself to action, and obey the laws of your being? Do this, and you will soon begin to feel your strength returning upon you. Every effort you make will add vigor to your drooping energies, and thus you will rise, prepared to enter afresh, with accumulated experience and chastened expectations, upon the great conflict of life. On the other hand, you have but to indulge your inclination to inaction under such circumstances, a little while, and you are gone, beyond the possibility of recovery.

In the light of these remarks, we see why it is that oftentimes, those who devote themselves to manual labor, and neglect the improvement of their minds, become mentally imbecile, as they advance in life, and finally sink into a state bordering upon idiocy, in extreme old age, while persons who have devoted themselves to intellectual pursuits, and continue to do so to old age, retain the full vigor of their mental faculties to the last. Innumerable instances might be cited in proof of this position. And hence the importance to the laboring class, of improving their leisure hours in the cultivation of their minds.

Again, we see why it is that persons who have amassed a fortune, and retired in the expectation of spending the remnant of their days in its enjoyment, are, of all men, most miserable, insomuch that there is no expedient to which they will not resort to kill time. They have mistaken the road to happiness, and are at war with the entire system of the divine economy.

We see the reason too, why those ladies, who are brought up in idleness, are so subject to ennui. spleen, faintings, &c. unless they can find some one to laugh and talk with them the whole time, and are such total strangers to that buoyant and happy frame of spirit which is the brithright of all who live up to the laws of their being. Their physical weakness and imbecility, which they regard as inseparable from delicacy, is visited upon them as a penalty, and is the necessary consequence of their inaction, and miseries untold, follow in the train. The laws according to which these things follow each other, are as invariable as those which regulate the rising and setting sun. Such females are doomed to unhappiness, and ten to one, the hardships and trials of after life, will result in most deplorable consequences.

We see again, the importance of the formation of correct habits in early youth, physical, moral and mental. A strange infatuation seems

to possess some parents in regard to the habits of their children in early youth, as though these habits were to have no sort of connection with their future characters, and as though they had discovered an error in the declaration of the Eternal One, that "whatsoever a man soweth, that shall he also reap." Fowler, the great Phrenologist, recommends that children be allowed to grow up to the age of twenty two (see notes on Combe's Physiology,) before their education be commenced. But if the principles advocated in these remarks, are correct, such a course would be ruinous. What, leave a child for twenty-two years of his life to the paralyzing influence of idle and vicious habits, and then expect him to become an industrious and virtuous citizen! It might be so, but it would look very much like a miracle, for it would be in direct contrariety to the laws which the Great Author of nature has established for the government of the Universe. Those laws no man may disregard but at his peril. And how is it in fact? Who are our industrious and virtuous citizens? Are they those who grew up to manhood in idle and vicious habits? Is not the very reverse the fact? Are they not those, whose physical, mental and moral training was commenced in their earliest years? And who are our idle, vicious and worthless citizens? Are they not those who contracted their habits of idleness and vice, before they arrived at the age twenty-two? And may we not add, that it is seldom indeed, that any material change takes place in the habits of individuals after the age of twenty-two?

Inorganic Elements of Nutrition.

All the world over, there are certain elements called inorganic, ten in number, which enter into the composition of every fertile soil, viz; potash, soda, lime, magnesia, alumina, oxide of iron, phosphoric acid, sulphuric acid, chlorine, and silica, and in some soils an additional inorganic element is found in minute proportion, viz, magnanese.

The most abundant of these elements is silica, constituting in different soils, from one-fourth to more than three-fourths of their entire weight. Of this element the common flint is a specimen. In its pure state, it is perfectly insoluble in water. In combination with other bodies, however, as potash or soda, for instance, it loses its insoluble character, and becomes food for the growing plant. In the straw of the various kinds of grain, this element greatly predominates over every other, and indeed over all others. In that of wheat it constitutes sixty five parts in a hundred. It is this which imparts stiffness to the straw, and enables it to maintain its upright position. Those plants which are unable to stand upright, as the pea, the potatoe, and other vines, are found to contain but a very small proportion of silica. And Professor Norton, of Yale College, analyzed some straw of oats which grew upon a field on which no kind of grain was able to maintain its upright position, and found a very great deficiency of this element. It is as a silicate of potash, or silica in combination with potash, (the same combination which forms glass) that produces this effect. It is this which gives to the straw its glazed appearance. So abundant is this element, in almost all soils, that it very seldom becomes necessary to supply it by artificial means.

The straw is also found to contain potash, about one-eight, lime about one-sixteenth, sulphuric acid in nearly the same proportion, magnesia about one twenty-fifth, phosphoric acid about one thirty-fourth, and chlorine, oxide of iron, and soda, in minute proportions.

In the kernel of the different kinds of grain, on the other hand, but little more than a trace of the element which so greatly predominates in the straw, (silica) is to be found. The predominating element in the kernel is phosphoric acid, constituting about one-half of its entire composition. And the reason of this difference is seen in the fact, that in building up the animal system there is little use for silica, whereas phosphoric acid comes largely into requisition. In combination with lime, it constitutes about one-half of the substance of the bones. It is this which imparts solidity and hardness to bones. It can be dissolved out of them, leaving the residue a soft, pliable, elastic substance. Phosphoric acid, as well as sulphuric acid, also enters, to a considerable extent, into the composition of the brain.

A kernel of wheat consists also of potash about one-fourth, magnesia about one-eight, soda about one-eleventh, lime about one thirty-fourth, and a small proportion of sulphuric acid, oxide of iron, and silica.

These elements in the soil, derive their origin from the gradual crumbling away and decomposition of the rocks, which form the crust

of the globe. And the peculiar properties of different soils, are found to correspond with those of the rocks from which they are derived. The process of decomposition through the action of air and moisture, must, of course, be slow, but yet, sufficient, in the lapse of ages, to produce immense results. The process may be accelerated, and indeed rendered, in many cases, almost instantaneous, by means of artificial appliances. And these elements, as they exist in the soil, in a state of disintegration, or decomposition, may be re-combined in their due proportions, and again take the form of solid rock. It is but recently, that we announced the fact, that Mr. Pepper, of Albany, had taken out a patent for forming a rock from a composition of alumina, silica, &c. which is harder and more enduring, than the hardest marble, upon which nothing but the diamond can make the slightest impression.

These inorganic elements, (elements of mineral origin) constitute about nine-tenths of the soil. If we leave out the silica, the remaining inorganic elements, constitute but about one-fifth part of the soil. The elements then which are liable to become exhausted, and need to be supplied by special manures, constitute but a small proportion of the aggregate of the soil, and several of these elements exist in very minute proportions. And yet, in their due proportion they are as essential to the growth of the plant, as those which exist in the greatest proportion.

We see then the reason why a very small quantity of some mineral often produces such wonderful results. Sixty pounds of plaster,(sulphate of lime) will often produce a ton and a half to two tons more of hay to the acre, than could have been produced without its application. And similar results are obtained from the application of other elements, in equally small proportion. And how is it, that so large returns are gained from so small an application, that the result is so disproportioned to the means employed? Plainly, upon the principle, that, for lack of this single element, all the other elements were rendered comparatively unvailable. These elements existed in the soil, and were within reach of the roots of the growing plant, previous to the application of the deficient one, in as great abundance as afterwards, but without the aid of that single one, they could not form those combinations, which are essential to the building up of the living structure.

We also see the reason why the application of these deficient elements is often regarded as very exhausting to the land. For a few years most luxuriant crops will follow the application of plaster or lime, and then the soil refuses to make its accustomed returns, and is apparently, and in fact, smitten with barreness. And what is the cause? Simply, that while one deficient element has been supplied, some other element has been exhausted by the immense crops consequent upon the application of the deficient one. In the application of a deficient element then, care should be taken, lest to supply the luxuriant crops which follow, some other element should be exhausted.

We see the reason too, why the application of certain elements, produces such wonderful effects upon some soils, and no effect at all upon others. They would of course produce no effect upon soils in which they already existed in sufficient quantity.

Fruit in Michigan.—From all we can learn, the prospect is fair for an abundance of fruit in nearly every portion of the State. The frost appears to have done but very little, if any injury. There is some complaint of the depredations of the curculio upon the Plum, the Appricot, and the Nectarine. Otherwise everything looks promising for all kinds of fruit.

By the way, a pile of common stable manure, deposited under trees infested with the curculio, it is said, will drive them away. The odor from it being intolerable to them. Try it; it will do the trees good, if it serves no other end.

Striped Bugs once more.—If there should be any of these pests left in the country, or if they should again rally their forces, we have a reinforcement to bring against them which has been kept in reserve. Mr. P. Hallock, of Livonia, has been in the habit of putting them to flight on this wise. He takes a piece of cotton batting, and spreading it so thin, that it will be no impediment to the ingress of light and heat from the sun, draws it over the vines, taking care to have the edge of it in close contact with the ground all around, where it may remain until the vines begin to run, and not a bug will trouble them.

Not exactly, and yet something like it.—The Prairie Farmer says we rejoice over the fact, that Michigan produces, in proportion to the population, four times as much wheat as Illinois, and intimates that our rejoiceing will be turned into mourning some day.

It certainly was not our intention to place Michigan in an attitude of exultation over her fair sister, nor did we individually, participate in any such feeling. We called Michigan the banner State in wheat-growing, and in so doing we simply asserted a truth, (which is not denied) without expressing an opinion as to whether it was to be set down to her credit or discredit. At the same time we would not like to swear that our feelings were perfectly pure on the subject. We must be something more than frail mortality, to be full proof against the kind of feeling ascribed to us. If it had been anything but wheat, the case would have been othwise. To say of a state that it is a great corn state, a great oat state, or a great potatoe state, is not saying so much to pride one's self upon. And to say of a man that he is as good as the corn, or as good as the oats, or as good as the potatoes, is not setting him up very high in the world, but to say of him that "he is as good as the wheat," is saying all that can be said—he is on the top round of the ladder.

But if we did betray a little excusable weakness, in suffering ourselves to be taken possession of, to a small extent, by feelings of that sort, we certainly are not obnoxious to the charge preferred, or at least implied, in the remarks of our esteemed namesake, viz: that in thus exulting, we are encouraging a system of cropping which will be ultimately ruinous to the agricultural interests of the commonwealth.

But how so? Admit all that is asked in regard to our rejoicings, and does it follow, that we are therefore opposed to a judicious system of rotation of crops, and in favor of cultivating a single staple? Suppose the Prairie Farmer should speak of Illinois as the banner State in corn-growing, would it therefore follow, that *that* Journal was in favor of its exclusive production, and opposed to rotation? By no means.

Did our friends of the Prairie Farmer notice an article in that very number of the Michigan Farmer, entitled, "Michigan Farming"? If they did, they have evidence enough of the utter groundlessness of the charge. But what we maintain is, that the true way, and the only way for Michigan to sustain herself in her present enviable position, is to fall into a judicious system of rotation.

What does this mean?—An Exchange calls us "the facetious and talented Editor of the Michigan Farmer." Now we protest against this. As to facetiousness, we have not laughed in six months that we know of, and in regard to talents we do not know what the word means. There are so many "num-skulls" now-a-days that are called talented, that it is no great honor to be so denominated. Since our connection with the Farmer, we have endeavored to deport ourselves with the strictest propriety, and what we have done, that such epithets should be inflicted upon us, we are at a loss to imagine.

A great country this, for wit and talents, as well as for 'Squires.

Prairie Farmer.—This well conducted Agricultural Journal, still maintains the high character which it has earned, and to which its merits justly entitle it. It has a sort of independant, care-for-nobody air about it, which greatly commends it to our esteem, and it is eagle-eyed enough, in all conscience, for all practical purposes.

And we here take occasion to say, once for all, that our exchanges from the West, are not one whit behind those from the East, in tact, talent, and resources.

True Magnanimity.—Says the N. Y. Farmer & Mechanic, "The Michigan Farmer for May, is before us, and contains much useful matter.—The article on "Mordants," is exceedingly interesting and useful."

What strikes us as peculiarly magnanimous in the above, is the fact, that the number of the Farmer to which so honorable an allusion is made, contains on article from the Farmer & Mechanic, without due credit, and yet, not the slightest reference is made to the circumstance. Surely friend Starr means to kill us with kindness. "Mistakes will happen," but we will try and keep little sharper look-out hereafter.

A towel dipped in hot water, and applied to the part affected, will, it is said, afford an effective and immediate relief to the painful contraction of the muscles called the cramp.

Churning by Water-power.—E. F. A discharge of five gallons of water per minute, with eight feet fall, would probably work an overshot wheel, by which the "milk and cream of a dozen cows" might be churned.

Iowa Farmer.

This paper, published in Burlington, in the young State of Iowa, is certainly one of our best exchanges. There is a sort of superstition both East and West, that papers of any sort, to be first rate, must be published in the city of New York, Philadelphia, or Boston, and that they gradually taper off in value, as their localities are farther Westward. According to this rule, a paper published in Iowa, ought to be a pretty small affair. But our friend of the Iowa Farmer seems to be regardless of all rules, for he certainly gives us a paper, which, with a change of title and date, would be regarded as belonging to quite another longitude.

By the way, the superstition above alluded to, we are happy to observe, is fast wearing away, and yet there are multitudes who are fast bound in its chains. We have been amused to see individuals gazing, with open mouths, in stupid vacancy, upon an Eastern paper, of the most "wishy washy" sort, as though the very sight of it would make them wondrous wise.

Western School Journal.—We have received a number of this publication. It is a monthly quarto, of sixteen pages, devoted to the interests of Education in the Mississippi valley, published at Cincinnati, by W .H. Moore &Co. It is filled with interesting and useful matter, and ought to find its way into every school district in the West.

Transactions of the N. Y. Agricultural Society.

We have received from B. P. Johnson Esq. Secretary of the N. Y. State Agricultural Society, through the kindness of T. C. Peters Esq. of Buffalo, a copy of the Transactions of that Society for 1848, accompanied with the request that we will forward the Michigan Farmer to the Agricultural rooms, at Albany—which request will be cheerfully complied with. It is a volume of 716 pages, and is freighted with valuable information on subjects connected with agriculture. We shall endeavor to make good use of it.

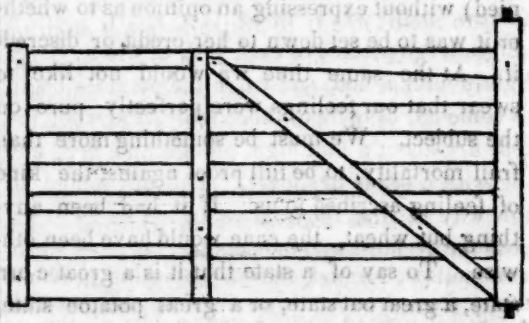
Report of Commissioner of Patents.

We have received from the commissioner of patents, his report for 1847. So far as we have been able to examine it, it appears to be replete with valuable information. In a document embracing so wide a range of statistics, there must necessarily be some error. An approxination to the truth, is the most that can be expected. It is a volume of 666 pages, neatly bound, and the greater part of it is devoted to subject of agriculture. We shall avail ourselves of its contents from time to time.

Sheep in New York.—A flock of sheep, thirty-six in number, was fattened last season on the farm of the Messrs. Goodyear, in Cobbskill, Schoharie county, New York, and sold for *three hundred and eighty dollars*, being an average of ten dollars and fifty-cents a head.

For the Michigan Farmer.

Farm Gates.



Mr. Isham:—Above I give you the plan of a Farm Gate. Few persons will conceive of the great advantages of gates over bars, until they have tried both.

Any farmer can make one like the plan above and in less time than he can make a pair of good bars.

The facility with which they are opened and shut, compared with the awkward, disagreeable operation of taking down and putting up a pair of bars, is argument enough ia the mind of any farmer, once having tried it, to induce him to discard those old-fashioned, old instituted trumperies, and supply their place with light, durable gates.

Description.—The heel piece, 6 feet long, 3 by 5 inches. The head 5½ feet long, 3 by 3.—The rail, or top piece, 11 feet long, 3 by 5 at the rear end, and 3 by 3 at the other. The slats may be made of inch boards, mortised into the head and heel pieces. The lower board should be 10 inches wide, the next 7 or 8, and the others 6 inches. Beginning at the bottom, the space between the first and second is 4 inches, the next 5, the next 6, and so on. The long braces are about 8 feet, 3 inches wide. The head, heel, and top pieces, and braces, should be white oak. The heel piece may be cut down at each end to enter a 2 inch hole in a resting and cap piece of good white oak. The resting piece should be let into the post at the surface of the ground, by a large mortise. The cap piece must be pinned to the top of the post. Those that are able to procure iron hangings will find them preferable no doubt. A good wrought nail should be driven each way, through the braces into the slats.

Redford, May 1848. Cha's Betts.

The way Russell Cobb raises Potatoes and Corn, and Manages his Pasture Lands--Another Farmer's Club.

For the Michigan Farmer.

Mr. Isham—Dear Sir:—Although I did not contemplate becoming a regular contributor or correspondent to the Farmer, yet the desire to encourage others to write what they know, and not be afraid because they are not known as great Farmers, induces me to write once more, and if you find it good enough, correct and print.

My way of raising Potatoes.—Select a good rich piece of ground, not too wet, plough deep, furrow both ways three feet apart, plant a single large potatoe in each hill, at the X, cover lightly with a hoe, and when the potatoes begin to come up, drag them thoroughly, and when the tops are about a foot high, plough and hoe, and dig with a spade or shovel. The advantage of this way is, first, the land being left so as to expose the greatest surface possible, becomes warm and mellow; second, the deep planting prevents injury from drouth; third, the dragging must be done just at the right time to kill the weeds and give the potatoes a start, and they grow percussion. Some object to the deep digging, but if the ground is full of good potatoes, that objection is obviated.

Ridging Corn Ground.—I should like to see some account of the experience of those who ridge their corn ground. I have generally ridged mine, and when not swarded or manured I think it the best. Let the ridges run east and west, cut down well into the ridge and it will start quicker, hoe easier, and need not be hilled up, and in ploughing a horse will not step on the ridges, but over them, and consequently will not step on the corn.

A few hints in regard to Pastures.—If you wish to have poor pastures, poor cattle and horses, and poor land, and be poor yourself, commence feeding them as soon as the ground is bare in the Spring, and keep your stock gnawing the ground, for there will be no feed in this way. But if you wish to have good pastures, good stock, and good land, do not feed till you have a good growth, and then it is worth something.—You can keep five times as much stock in this way as in the other, and keep them ten times as well, and your land will not look starved to death, nor will the crows call for your cows. June clover is excellent for pastures, do not let a hoof touch it till it begins to blow, and it will last. Meadows should not be fed in the Spring at all if you wish to have hay for feed in the Winter.

Farmer's Club.—We have started, and we mean to sustain a Farmer's Improvement Society in Hadley. The object is improvement in raising and selling all kinds of Produce, of Field Garden or Orchard, Stock or Flock, Seeds or Tools, &c.

Any person residing in the town, may be a member by signing the Constitution and contributing fifty cents annually to the fund of the Society, to be paid out in premiums.

Our wheat looks well at present, and if it continues good, we intend to send a thousand barrels of flour where we can get its value. Please give us a word of encouragement.†

You desire to know the difference between the effects of what I call a honey dew, (I do not know that the name is a proper one, but it is what I was learned when a boy,) but I do know there is something connected with those heavy dews, that causes rust, and I challenge any one to prove that rust is produced any other way. I know there are various theories extant, but give us the proof, that wheat which was not rusty before a shower, was rusty immediately afterwards, or that the scalding heat of the sun, as some suppose, after a shower, causes rust, and I shall learn something. The Editor accuses me of what I do not feel conscious, of endeavoring, with some skill, to shift a question. I am not the man; I had rather be found wrong in opinion than dodge, but I still think my phylosophy deeper than that of Mr. Cost. I think that atmospheric influences, light and heat, dews and small showers, do not influence or ameliorate the soil, to say the least, as much, to any considerable depth, as near the surface, and although heat and heavy rains may, and do extend to considerable depth, yet the greatest effect is near the surface.*

Yours, &c.

Russell Cobb.

†Certainly the farmers of Hadley have good reason to be encouraged and to congratulate themselves upon their prospects, for if they are true to themselves, and true to the great cause of agricultural improvement, the establishment of a Farmer's club among them, will constitute an epoch in their history not less important to them, than is the French revolution to the French Nation, and possibly far more important, for a steady, intelligent advance, is far more likely to result from such an organization among the farmers of Hadley, than from the tumultuous heavings of the French populace. And certainly, the objects to be accomplished are not less important in the former case than in the latter. We say then to the farmers of Hadley, gird up yourselves to the great work before you, for you are among the pioneers in an enterprise which is destined to revolutionize the entire system of agriculture—and surely, *no* revolution *can* be more important. Ed.

*Right this time.—Ed.

NEW INVENTIONS.

New Mechanical Power.

A correspondent of the American Courier, Philadelphia, communicates the following information to that paper.

Being on business in the West a few months since, I became acquainted with the inventor of a new motive power for machinery, which is destined to produce no little sensation among the theorists in Natural Philosophy. If the invention is not the discovery of a new mechanical power, it is at least such a combination and application of known ones, that it may well be called the discovery of a new power. The inventor's name is Thomas Kealey, Esq., formerly from New York, but for several years past he has been, and now is, a resident of Rollin, Lenawee co., Michigan. The motive or propelling power which Mr. Kealy has invented is obtained by means of weights, cords and pulleys connected by an ingenious contrivance with two heavy pendulums, suspended upon either side of the frame work of the machine. Across the tops of the pendulums are arms connecting with others which are attached to a ballance wheel, and as one pendulum swings to the right, causing the ballance-wheel to revolve half around, the other pendulum then swings to the left, completing the revolution of the wheel and by this alternate motion of the pendulums, a continued rotary motion of the wheel is secured. There does not seem to be any question as to the applicability of the power to propel local machinery and the inventor is confident that it may be applied to railway cars. The inventor has furnished me with the following experiments with his new motive power, in a letter recently received. "I have just completed one power of two levers combined, each five feet long, and by an experiment obtained the following results;—The sweep of the end of the lever was 26 inches; one pound weight raised 36 pounds 6 inches; 7 1-2 pounds with the same lever and sweep, raised 36 pounds 40 1-2 inches. Thus you see I am ahead of time by 14 1-2 inches with 7 1-2 pounds of weight. I have as yet but one power completed, and when the two other powers or perpetual levers and pulleys are attached, from the above data, 20 pounds of weight will raise 2000 pounds one foot, with only 26 inches space for the sweep of the levers."

Iron Beadsteads are becoming extensively introduced. Their peculiar neatness of construction, great durability and cheapness, will go far towards bringing them into general use. The posts are cast in various fanciful designs and paterns, and a neat wire net-work supercedes cords or canvass.

It is stated, says the N. Y. Farmer and Mechanic, that a cannon has recently been invented in this city for discharging balls by mechanical agency alone. No powder or other explosive substance used. With six men to turn a crank, 300 balls of the size of grape shot could be discharged in the space of a minute.

Self-Adjusting Ox Yoke.

We were called upon, the other day, by Mr. John Tucker, of Norway, Oxford county, in this State, to examine a new self-adjusting ox yoke. It is on an entirely new principle, and so constructed that the bows around the neck of each ox can slip equally from or nearer to the ring and staple, according as they find a narrow or wide, a rough or smooth path, and it becomes necessary to separate from, or come nearer to each other. Thus at one moment it becomes a short yoke and the next a long one, as circumstances may require, and at the same time every thing fits easy, and the draft is continued without interruption, and apparently with much more ease than in the common yoke, where there is no sliding or vibration of the kind. Wishing to see it tested, and have the verdict of those for whose benefit it was designed, we had a pair of oxen yoked in it, and attached to a loaded cart. The cattle went on as usual until they came to a rough place in the road, when in selecting a good footing they hauled apart a little and the bows slid out from the centre, instantaneously making a long yoke. At the moment it came out, "old Star" stopped and looked round in surprise, as much as to say, "*I am unyoked*," but finding his mistake, he jogged along, apparently with much pleasure. Presently they came to a spot that was gullied, and the path narrow, when they closed up cosily together, and old Star put his muzzle up to his mate's, and seemed to whisper, "*aint that mice?* there's now no need of our crowding or hauling apart, there's no need of jamming our necks, every thing accommodates itself to our wishes."

The principle of its operation is this—a bolt passes up through the yoke, instead of the staple, having an eye at the end, in which the ring is placed. Near the upper end of the ring is placed an iron cog wheel or pinion, which plays loosely upon the bolt. An iron rack is placed on each side of this pinion. One of the racks is attached to a block at the right end and the other to a block at the left end of the yoke. The bows pass through these blocks and the blocks slide back and forth in a slot made in the yoke. It looks rather odd, but it fits as easy, is no heavier, and is as strong and a little stronger than the common yoke. You can arrange it in five minutes, so as to give either ox the advantage if you wish, and the sliding of the bows to or from, will keep the same relative distance.

The invention was made by a live Yankee. The expense is about the same as a first rate yoke of the common construction. Any thing that will lighten the toil of this patient and most useful animal, should be patronized.—*Maine Farmer.*

GENERAL INTELLIGENCE.

The Treaty Ratified.—The Treaty has been ratified on the part of Mexico, and transmitted to the Government of the United States, and by it has been sent to the American Senate for its final action.

Orders for the evacuation of Mexico have been transmitted to the American Army, and the different regiments are on the move towards the coast, and some of them have already embarked for the United States.

There is a rumor of the rising of the Indians in the Province of Tobasco, and also, that they have taken possession of San Louis Potosi.

The Whig Convention which recently assembled at Philadelphia, nominated General Zachary Taylor for President, and Millard Fillmore of Buffalo, for Vice President of the U. S.

Thomas Fitzgerald, of Niles, has been appointed by Gov. Ransom, to fill the vacancy in the U. S. Senate, occasioned by the resignation of Gen. Cass.

The Synod of Michigan convened in this city on Thursday last, and after a Session of three days, during which several interesting discussions were had, and considerable business disposed of, adjourned to meet at Niles one year from that day.

Emancipation.—A new paper, called "The Crisis," has been established at Moundsville, Va. The editor of the Crisis, Anson Berkshire, Esq. says:

"The main object we have in presenting the public with this weekly visiter, is Emancipation—a theme which is now absorbing both the North and the South. We do not feel at all ashamed to embark in this general crusade against the system of American slavery; as it is a notorious fact, that many of the noblest citizens of the sunny South, have declared in favor of emancipation, as the only means of saving the nation from a premature and disgraceful death. Many, very many, slaveholders in Virginia, are in favor of a well grounded system of emancipation, and will labor efficiently for its attainment."

Liberia.—The Commercial Advertiser, citing from its late files of Liberia papers, says:

"The Luminary speaks of a very general and strong desire on the part of the native residents, the Congoes especially for instruction. They throng the Sabbath schools and manifest astonishing eagerness in the pursuit of knowledge.

The subject of the organization of a territorial government for Oregon came up in the Senate on the first instant. Mr. Hale of New Hampshire, moved an amendment to the bill, providing for the prohibition of slavery — the same in substance as the Wilmot Proviso and the Ordinance of '87. This, as a matter of course, brought on an animated discussion, in which several Senators engaged.

A Funeral scene.—A German woman passed up the street towards Cemetery, this morning, carrying upon her head a coffin, neatly draperied in black, containing the corpse of her child. She was accompanied by a young girl, apparently her daughter, and some four or five of her countrymen and women all dressed in the same habiliments of wo. Unmindful of the public gaze attracted by such a scene, they moved sadly and slowly along observing a silence unbroken save by the sobs and sighs of the bereaved ones.— *Cleve. Herald.*

An imperial order has dissolved the society of the Jesuits in Austria. Some opposition was made, but it availed nothing; and the Jesuits must now bid an eternal farewell to Austria.

Foreign.—A conspiracy against the Provisional Government of France, set on foot by ultra Radicals, Fourierists, called Communists, or Associationists, have been detected and promptly put down. The recent attempt of the Communists and Associationists to produce anarchy and confusion has tended to strengthen the powers of the National Assembly and the new Executive Government of their appointment. It is a singular coincidence that Messrs. Barbes, Albert and other members of the self constituted committee of public safety, were seized in the very room where Robespierre and his associates were formerly arrested. Among the prisoners were Sobrier, Raspail, Cahet, Albert, (ouvrier) lately a member of the Provisional Government, Tostin, Saisset, Lemaitre, Boquet, Thore, Barbes, Huber, Courtais, and Blanqui. The National Guard tore off his epaulettes from Courtais. Caussidiere, prefect of police, was implicated and dismissed. Blanqui and Hurbert, through "some mysterious agency," have escaped. Ledru Rollin was arrested at the Hotel de Ville, but released on Lamartine's saying he would be answerable for him. At the latest accounts from Paris everything was tranquil. The National Assembly had forbidden all armed meetings, Motions were being made to place Louis Blanc on his trial, with Gen. Courtais and M. Albert, as the real heads of the late conspiracy; to close all the clubs both in Paris and the Provinces; to forbid public processions with banners in the streets. The prisoners are all strongly guarded in the dungeons of Vincennes. The events at Paris had had an effect in Rouen; but as soon as it was known that the National Assembly had prevailed, all was quiet.

Italy and Austria.—A letter from Venice of May 11th, says a serious encounter has taken place near Comuda and Molinetto between the Austrians on one side and the corps of Durandi and Ferreri on the other. The Austrians lost 500 prisioners, 400 dead or wounded. In was believed their main army, 5000 strong, would lay down their arms. In the great battle fought under the walls of Terona nearly the whole Piedmontese army, (some 30,000 men) had been engaged. The Austrians numbered less than 20,000, and had been every where driven back.

Erratum.—We have published the Farmer now six months, and not a single error has crept into it big enough to need correction, until the issue of our last number, in which occurred one of sufficient magnitude to make up all the lost time. And yet the magnitude of it consisted mainly in the printer's putting one single letter for another—a J. in the place of a T. In this way our correspondent was made to say "Juleps," instead of "Tulips." It was enough to make the very flowers blush and hang their heads.

TERMS.—The MICHIGAN FARMER is published at Detroit, twice a month, by WARREN ISHAM, at one dollar a year in advance—after three months $1 25—after six months $1 50—after nine months $1 75. No subscription taken for less than one year, nor discontinued till all arrerages are paid. To clubs, five copies for four dollars.

Office, on King's corner, third story.

Market Intelligence.

DETROIT PRICE CURRENT.

Flour, bbl.			$4 75	Salt,		$1 25	a$1 50
Corn, bus.		a	44	Butter,		9	a 10
Oats,		a	34	Eggs, doz.			9
Rye,		a	42	Hides, lb.		3	a 6¼
Barley,		56	a	Wood, cord,	2	25	a 2 50
Hogs, 100 lbs.	3	00	a 3 50	Wheat, bus.			90
Apples, bush		a	1 00	Hams, lb.		6	a 6¼
Potatoes,			62½	Onions, bu.		41	a 50
Hay, ton,	8	00	a10 00	Cranberries,			a 1 25
Wool, lb.		15	a 25	Buckwheat	100	lbs.	1 50
Pig iron, ton,	35	00	a40 00	Indian meal,	"		1 00
Coal, Leh.	11	00	a13 00	Beef, do	3	50	a 4 50
do Ohio,	4	00	a 5 00	Lard, lb. retail,			7
Peas, bu,		a	75	Honey.			10
Beans,		75	a 80	Apples, dried,			1 00
Beef, bbl.	5	00	a 6 00	Peaches, do			a 2 00
Pork,	8	00	a10 00	Clover seed, bu.			4 50
White fish,	6	00	a 7 00	Herd's grass do	do		1 00
Trout,	5	50	a 6 50	Flax	do		75
Cod fish, lb.		5	a 5½	Lime, "	bbl		75
Cheese,		6	a 8				

DETROIT SEED STORE AND AGRICULTURAL WAREHOUSE.—In compliance with the expressed wish of a great number of the intelligent and enterprising farmers of Michigan, the subscribers have established *a seed store and agricultural warehouse* at Detroit, at which will be kept constantly on hand, the choicest varieties of garden, field and flower seeds, obtained from such sources, that they feel no hesitation in recommending them to be of the very best quality. Also, Agricultural and Horticultural implements and labor-saving machines, such as are usually kept at the agricultural warehouses at the East, among which are Pratt's Patent corn-planter and seed drill, Pennock's patent drill (for drilling in wheat and other small grain,) Pitt's thrashing machine, improved harrow, improved cultivator, a great variety of plows, corn shellers, straw cutters and washing machines of the most approved kinds, together with Rich's Beehive, Montgolphier's Hydraulic Ram, Grant's Fanning Mill, Camwheel Churn, &c.

At Nos. 93 and 95 Woodward Avenue, nearly opposite the National Hotel.

Detroit, June 1st. 1848.

F. F. PARKER & BROTHER.

WANTED—An apprentice, about 15 years of age and of good habits, with at least a good common education. Apply at this office.

AT THE DETROIT NURSERY AND GARDEN, situated on the Chicago Road, one and a quarter miles from the Detroit City Hall, may be found a good stock of fruit, and ornamental trees and shrubbery.

We have very fine trees of all the best varieties of Pear, (both dwarf and standard,) Apple, Peach, Plum, Cherry, Nectarine, Apricot &c., which, together with a large assortment of ornamental trees and shrubbery will be sold as low as at the Eastern markets.

Orders left at the store of John Palmer and Co. No. 108 Jefferson Avenue, or at the nursery, will be punctually attended to.

J. C. HOLMES.

Detroit April 7th 1848.

Detroit Wool Depot.

In Atwater Street, back of the Michigan Exchange, formerly the storehouse of Gillet and Desnoyers.

THE undersigned will open a depot at the above mentioned place, and be prepared to receive from farmers their wool immediately after shearing. His plan will be similar to that of the Eastern depots, which have proved so satisfactory to both wool-growers and manufacturers; that is, if lots of wool are of an even quality, and if the owner wishes, each man's clip will be kept and sold separately. If not even in quality, they will be thrown into sorts according to quality and condition. As soon as a sufficient quantity is collected, Eastern manufacturers will be invited to examine and purchase. No difficulty is anticipated in effecting prompt cash sales, at good rates, as the orders on wool depots from manufacturers, have hitherto generally outrun the supply. Wool may be delivered at the depot from wagons, or, if sent by Railroad, will be taken by me from the carhouse; without expense or care to the owner. It will be sufficient for him to put his wool aboard the cars, taking a receipt for the same, mark the bales with his name, and consign them to the "Detroit Wool Depot," and all will be safe. Insurance will be effected on all lots as soon as arrived. All charges, *including insurance*, cartage, sorting, storage, shipping and for effecting sale, will be included in a commission of one and a half cents on the pound.

EARDLEY IVES.

Detroit March 27th, 1848.

REFERENCES.—E. P. Hastings, C. C. Trowbridge, B. F. .H Witherell, Z. Pitcher, M. D. M. Palmer, Shubael Conant.

Improved Railroad Portable Horse Powers, and Over-shot Threshing Machines and Separators.—Having sold upwards of seventy setts of the above celebrated machines the past season, and to many large farmers in this state, Vermont, Massachusetts, Michigan, Ohio, Ilinois, Wisconsin, Canada, and with entire satisfaction in every case, the subscriber would call the particular attention of farmers and mechanics desiring such machines, before purchasing—as he is prepared to offer a better finished article, with some slight improvements, at a less price, than before—for full particulars, description, &c, see catalogue, furnished gratis at the warehouse, Number 10 and 12, Green street, Albany, or by mail to those desiring them. HORACE L. EMERY.

Abany March 16th, 1848.

PETERS'

BUFFALO WOOL DEPOT,

SECOND YEAR.

I have established a Wool Depot upon the following plan: *First*, The Wool is thrown into 10 sorts; Merino wool being No. 1, the grades numbering down from 1 to 5; the coarsest common wool being No. 5. Saxony wool is thrown into extra, and prime 1 and prime 2.—Combing and De Laines make 2 sorts more. *Second*, I charge for receiving, sorting, storing, and selling, ONE CENT PER POUND; this includes all charges at Depot, except insurance. *Third*, Sales are made for cash, except when otherwise directed by owner.

☞All wool consigned to me should be marked with the owner's name.

Warehouse corner Washington and Exchange streets.

Buffalo, Jan. 1, 1848. T. C. PETERS.